

FINDING OF NO SIGNIFICANT IMPACT/RATIONALE

FINDING OF NO SIGNIFICANT IMPACT: I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action will not have significant impacts on the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

Rationale for Recommendations: The proposed action would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the Roswell Resource Management Plan and Record of Decision (October, 1997).

/s/ T. R. Kreager

3/14/06

T. R. Kreager,
Assistant Field Manager, Resources

Date

**ENVIRONMENTAL ASSESSMENT
for
GRAZING AUTHORIZATION**

ALLOTMENT 64094, SECTION 3

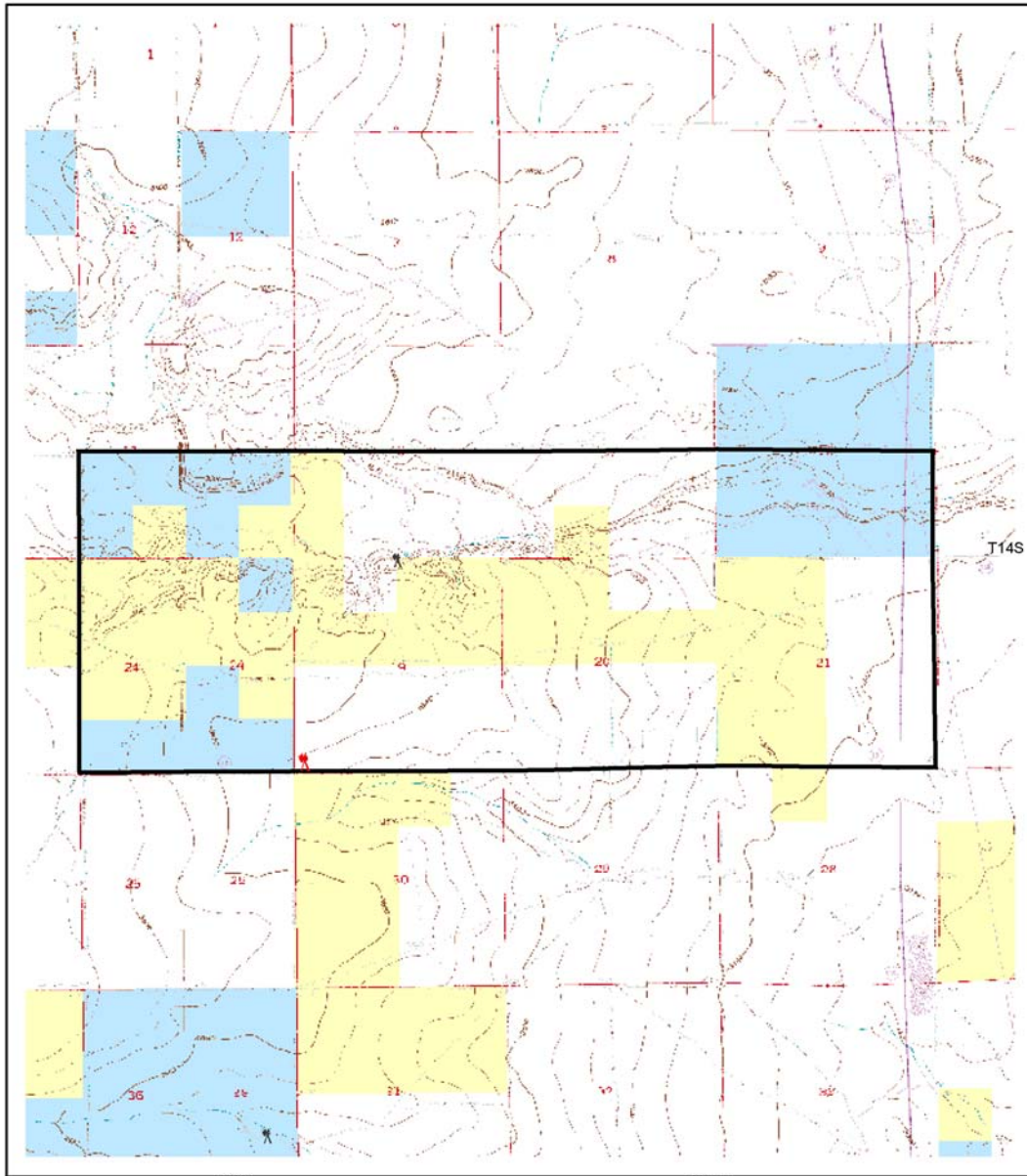
EA-NM-510-2006-0009

October 2005

**U.S. Department of the Interior
Bureau of Land Management
Roswell Field Office
Roswell, New Mexico**



Howes Place - 64094



Public State Private

BASE WATERS IN RED

WINDMILL

Allotment Boundary

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for the purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

Produced by the RFO GIS Specialist on May 3, 2005.

I. Introduction

When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) has historically relied on a land use plan and environmental impact statement to comply with the National Environmental Policy Act (NEPA). A recent decision by the Interior Board of Land Appeals, however, affirmed that the BLM must conduct a site-specific NEPA analysis before issuing a permit or lease to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing permit on allotment #64094.

The scope of this document is limited to the effects of issuing a 10 year grazing permit, other future actions such as range improvement projects will be addressed in a project specific environmental assessment. There are no current plans for additional management actions on this allotment.

A. Purpose and Need for the Proposed Action

The purpose of issuing a new grazing permit would be to reauthorize livestock grazing on public lands on allotment #64094 and modify the permit term to coincide with the Bureau of Land Management (BLM) schedule for Public Land (Rangeland) Health Assessments with permit/lease renewals. The permit would specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR §§4130.3, 4130.3-1, 4130.3-2 and 4180.1. The existing grazing permit expires 02/28/2007.

B. Conformance with Land Use Planning

The Roswell Resource Management Plan/Environmental Impact Statement (October 1997) has been reviewed to determine if the proposed action conforms to the land use plan's Record of Decision. The proposed action is consistent with the RMP/EIS.

C. Relationships to Statutes, Regulations, or Other Plans

The proposed action is consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Federal Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management and Executive Order 11990, Protection of Wetlands.

Proposed Action and Alternatives

A. Proposed Action:

The proposed action is to authorize a grazing permit for the Howe allotment. The permit would authorize 59 Animal Units (AU's) yearlong at 40 percent federal range for 283 Animal Unit Months (AUM's). Cattle are the class of livestock proposed for authorization.

B. No Permit authorization alternative:

This alternative would not issue a new grazing permit. There would be no livestock grazing authorized on public land within allotment #64094.

III. Affected Environment

A. General Setting

Allotment #64094 is located in Chaves County, about 6 miles southwest from Hagerman, New Mexico. This allotment is 3,845 acres in size and contains 1,440 acres of Federal land, 480 acres of State Land and 1,925 acres of private land.

This allotment lies within the boundaries of the Roswell Grazing District established subsequent to the Taylor Grazing Act (TGA). Grazing authorization on Public Lands inside the Grazing District boundary is governed by section 3 of the TGA. In this instance the livestock numbers for the allotment were set by the amount of forage produced on the public land. The landscape is generally flat. This allotment is categorized as a "M" or maintain allotment.

This allotment is located within the Grassland vegetative community as identified within the Roswell RMP. The distinguishing feature for the grassland community is that grass species typically comprises 75% or more of the potential plant community. Short-grass, mid-grass, and tall-grass species may be found within this community. The community also includes shrub, half-shrub, and forb species. The percentages of grasses, forbs, and shrubs actually found at a particular location will vary with recent weather factors and past resource uses.

The following resources or values are not present or would not be affected: Prime/Unique Farmland, ACEC's, Wild and Scenic Rivers, Floodplains, Hazardous/Solid Wastes, Wetlands/Riparian Zones, Native American Religious Concerns. Cultural inventory surveys would continue to be required for federal actions involving surface disturbing activities. The impact of the proposed action and alternatives to minority or low-income populations or communities has been considered and no significant impact is anticipated.

B. Affected Resources

1. Soil: The soil varies from very shallow to deep, are well drained, and found on nearly level to sloping areas. For in depth soil information, please refer to the Soil Survey of Chaves County New Mexico, Southern Part, published by the Natural Resource Conservation Service (NRCS). A copy of this publication may be reviewed at the BLM Roswell Field Office or at a local NRCS office. Major soil associations are:

Upton-atoka association

Upton soil makes up 50 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 7 to 24 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 75 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SHALLOW, ecological site.

Atoka soil makes up 30 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is low, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 7 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the LOAMY, ecological site.

Tencee-upton complex

Tencee soil makes up 55 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 7 to 20 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 45 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SHALLOW, ecological site.

Upton soil makes up 35 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 7 to 24 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 75 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the SHALLOW, ecological site.

Reakor-tencee association

Reakor soil makes up 55 percent of the map unit. This map unit is in the Pecos-Canadian Plains and Valleys Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 30 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the LOAMY, ecological site. It is irrigated land capability subclass 2e.

Tencee soil makes up 30 percent of the map unit. This map unit is in the Pecos-Canadian Plains and Valleys Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 7 to 20 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 55 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SHALLOW, ecological site.

Reakor loam, 0 to 3 percent slopes

Reakor soil makes up 85 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 30 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the LOAMY, ecological site.

Bigetty-pecos association

Bigetty soil makes up 60 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is low. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding is rare, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 7 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the LOAMY, ecological site.

Pecos soil makes up 20 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is low. The depth to a restrictive feature is greater than 60 inches. It is moderately well drained. The slowest soil permeability within a depth of 60 inches is impermeable. Available water capacity within a depth of 60 inches is moderate, and shrink swell potential is high. Annual flooding is rare, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 15 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the DRAW, ecological site. It is irrigated land capability subclass 2s.

2. Vegetation: This allotment is within the grassland vegetative community as identified in the Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Vegetative communities managed by the Roswell Field Office are identified and explained in the RMP/EIS. Appendix 11 of the draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies the components of each community. The distinguishing feature for the grassland community is that grass species typically comprises 75% or more of the potential plant community. The community also includes shrub, half-shrub, and forb species. The percentages of grasses, forbs, and shrubs actually found at a particular location will vary with recent weather factors, past resource uses and the potential of the site.

Grasslands are intermixed with all community types. Tobosa grass (*Pleuraphis mutica*), burrograss (*Scleropogon brevifolius*), sand dropseed (*Sporobolus cryptandrus*), alkali sacaton (*Sporobolus airoides*), three-awn (*Aristida* spp.), black grama (*Bouteloua eriopoda*), gyp grama (*Bouteloua breviseta*), bush muhly (*Muhlenbergia porteri*) and fluffgrass (*Dasyochloa pulchella*) are common. Tobosa grass is the dominant species. The grassland sites also have a fourwing saltbush (*Atriplex canescens*), broom snakeweed (*Gutierrezia sarothrae*) shrub, or cacti (*Opuntia* spp.) component.

A rangeland monitoring study was established in one key area within allotment 64094 in the early 1980's. These study data serve as the basis for range trend analysis, ecological (range) condition ratings, track vegetation changes and assists in the evaluation and comparison of stocking rates.

The primary ecological (range) site on the allotment is a Loamy SD-3. Ecological site descriptions are available for review at the Roswell BLM office or any Natural Resources Conservation Service office or may be accessed at www.nm.nrcs.usda.gov. Other ecological sites include Shallow, Draw and Bottomland SD-3.

The traditional range condition methodology compares collected rangeland monitoring information with the potential vegetation community in terms of species composition by weight. The rating is based on a scaled of 0 to 100 with 100 being the potential representative site.

The National Resource Conservation Service (NRCS) has recently revised the methodology for comparing the existing vegetation community with the potential vegetation community and to aid in the determination of ecological condition. This methodology is called the Similarity Index (SI) the BLM is currently incorporating this revision into the monitoring and evaluation processes. The SI compares existing vegetation data (collected from rangeland monitoring) with the potential vegetation community described in the NRCS ecological site guide for that site. The index is based on a scale of 0 to 100 with 100 being the actual representative site. For the Loamy SD-3 ecological (range) site, the normal year production is about 900 pounds per acre. The index takes into account vegetation species present and the relative amount of production for each species when compared to the potential for the ecological site.

Note: The individual ecological site guides are very broad and often cover several soil associations and that may support several different plant communities that differ in both plant composition and production potential. These differences must be factored in when evaluating the indices associated with both the range condition and similarity index. The similarity index rating because of the tie with production (lb/ac) may be influenced by precipitation. The ratings for individual years may vary significantly due to precipitation; this variability may be reduced by using the long term moving averages as shown on the production data sheets at the end of this document.

The RFO is currently in the process of integrating the revised methodology into current monitoring and evaluation processes. The traditional range condition rating method (used from 1980 to 1998) is retained for comparison purposes. This data is included at the end of this document.

Vegetative production is influenced by many factors; however, precipitation in amount and timing is the most critical factor. Southeast New Mexico has been in a drought stage the last few years.

The long term vegetative production, ground cover and trend data for the allotment is shown at the end of this document. Range monitoring data indicate that the vegetation is sustainable to meet multiple resource requirements and forage at the permitted use level under the Proposed Action.

3. Wildlife: This allotment is within the Macho Habitat Management Area. Game species occurring within the area include mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*), mourning dove (*Zenaida macroura*), and scaled quail (*Callipepla squamata*). Raptors that utilize the area on a more seasonal basis include the Swainson's (*Buteo swainsoni*), red-tailed (*Buteo jamaicensis*) and ferruginous hawks (*Buteo regalis*), American kestrel (*Falco sparverius*), and great-horned owl (*Bubo virginianus*). Numerous passerine birds utilize the grassland areas due to the variety of grasses, forbs, and shrubs. The most common include the western meadowlark (*Sturnella neglecta*), mockingbird (*Mimus polyglottos*), horned lark (*Eremophila alpestris*), killdeer (*Charadrius vociferous*), loggerhead shrike (*Lanius ludovicianus*), and vesper sparrow (*Pooecetes gramineus*).

The warm prairie environment supports a large number of reptile species compared to higher elevations. The more common reptiles include the short-horned lizard (*Phrynosoma douglasii*), lesser earless lizard (*Holbrookia maculata*), eastern fence lizard (*Sclerophorus undulatus*), coachwhip (*Masticophis flagellum*), bullsnake (*Pituophis melanoleucus sayi*), prairie rattlesnake (*Crotalus v. viridis*), and western rattlesnake (*Crotalus viridis*).

A general description of wildlife occupying or potentially utilizing the proposed action area is located in the Affected Environment Section (p. 3-62 to 3-71) of the Draft Roswell RMP/EIS (9/1994).

4. Threatened and Endangered Species: There are no known resident populations of threatened or endangered species on this allotment. A list of federal threatened, endangered, and candidate species reviewed for this EA can be found in Appendix 11 of the Roswell RMP (AP11-2). Of the listed species, avian species such as the bald eagle (*Haliaeetus leucocephalus*) and peregrine falcon (*Falco peregrinus*) may be observed in the general geographic area during migration or the winter months. There are no known records of these species having occurred on the allotment, and no designated critical habitat areas are within the allotment.

5. Livestock Management: The allotment is operated as a cow/calf herd. The Howe allotment consists of one pasture. One well provides livestock water for the allotment. Livestock movement is dependant upon rainfall patterns. Typically, the allotment is stocked conservatively during periods of dry weather for vegetation conservation.

6. Visual Resources: The allotment is located in a Class IV Visual Management Area. The Class IV rating means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, the changes should repeat the basic elements of the landscape

7. Water Quality: No perennial surface water is found on the Public Land on this allotment.

8. Air Quality: Air quality in the region is generally good. The allotment is in a Class II area for the Prevention of Significant Deterioration of air quality as defined in the Public Clean Air Act. Class II areas allow a moderate amount of air quality degradation.

9. Recreation: Since this allotment has no facility based recreational activities, only dispersed recreational opportunities occur on this land. Recreational activities that may occur include hunting, caving, sightseeing, Off Highway Vehicle Use, primitive camping, horseback riding and hiking.

Off Highway Vehicle designation for public land within this allotment are classified as "Limited" to existing roads and trails.

The fact that public land boundaries are not marked adequately or identified by signs and/or fences, the general public may be reluctant to use this public land in fear of being in trespass on private. The only legal access is a half mile stretch of public land along NM State Highway 13.

10. Cave/Karst: This allotment is located within a designated area of low karst and cave potential. A complete significant cave or karst inventory has not been completed for the public land located in this grazing allotment, no significant cave or karst features are known to exist within this allotment.

11. Noxious and Invasive species: A noxious weed is defined as a plant that causes disease or has other adverse effects on the human environment and is, therefore, detrimental to the public health and to the agriculture and commerce of the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or hosts of harmful insects or disease, and are either native, new to, or not common in, the United States. In most cases, however, noxious weeds are non-native species.

The list currently includes the following weeds: 1) African rue (*Peganum harmala*), 2) black henbane (*Hyoscyamus niger*), 3) bull thistle (*Cirsium vulgare*), 4) camelthorn (*Alhagi pseudalhagi*), 5) Canada thistle (*Cirsium arvense*), 6) dalmatian toadflax (*Linaria genistifolia* ssp. *Dalmatica*), 7) goldenrod, (*Solidago Canadensis*) 8) leafy spurge (*Euphorbia esula*), 9) Malta starthistle (*Centaurea melitensis*), 10) musk thistle (*Carduus nutans*), 11) poison hemlock (*Conium maculatum*), 12) purple starthistle (*Centaurea calcitrapa*), 13) Russian knapweed (*Centaurea repens*), 14) Scotch thistle (*Onopordum acanthium*), 15) spotted knapweed (*Centaurea maculosa*), 16) teasel (*Dipsacus fullonum*), 17) yellow starthistle (*Centaurea solstitialis*), 18) yellow toadflax (*Linaria vulgaris*), 19) Russian olive (*Elaeagnus angustifolia*), 20) Saltcedar (*Tamarix chinensis*), 21) Siberian elm (*Ulmus pumila*).

Of the noxious weeds listed, the ones with known populations in the Roswell District are African rue, non-native thistles (*Cirsium* spp.) such as bull thistle and Canada thistle, leafy spurge, poison hemlock, teasel, musk thistle, goldenrod, Malta starthistle, Russian knapweed, tamarix species, Siberian elm, Russian olive and Scotch thistle. Also

"problem weeds" of local concern are cocklebur (*Xanthium* spp.), buffalobur (*Curcubita foetidissima*) and spiny cocklebur (*Xanthium spinosum*). "Problem weeds" are those weeds which may be native to the area but whose populations are out of balance with other local flora.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers \$2 to \$3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Further, noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both the directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

12. Floodplains: Within this allotment, one floodplain exists that is recorded on Federal Emergency Management Agency maps. The identified floodplain is the Felix River. Any future permanent structures or improvements will be analyzed on a site specific basis prior to approval within the floodplain.

13. Oil and Gas/Rights of Way: At present oil and gas/rights of way activities are limited on this allotment. Due to the increased exploratory activities within this area, there is the potential for new development. There will be no further discussion of this resource.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. Soil: Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative cover on the allotment this will maintain the stability of the soil. Soil compaction and excessive vegetative use will occur at small, localized areas such as bedding areas, watering locations, and along trails. Positive affects from the proposed

action may include acceleration of nutrient cycling, and chipping of the soil crust by hoof action may stimulate seedling growth and water infiltration.

2. Vegetation: Vegetation will continue to be grazed and trampled by domestic livestock as well as other herbivores. The area has been grazed by livestock since the early part of the 1900's, if not longer. The area evolved with large ungulate animal species and native vegetation is accustomed to herbivory. Ecological condition and trend is expected to remain stable and/or improve over the long term with the proposed authorized number of livestock and existing pasture management. Rangeland monitoring data indicates that there is an adequate amount of forage for the multiple resource use objectives.

3. Wildlife: Domestic livestock will continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within this allotment. The magnitude of livestock grazing impacts on wildlife is dependent upon the species of wildlife being considered, and its habitat needs. In general, livestock stocking rate adjustments have been made in the past to minimize the direct competition for those vegetative resources needed by a variety of wildlife species. Cover habitat for wildlife will remain the same as the existing situation. Maintenance and operation of existing waterings will continue to provide dependable water sources for wildlife, as well as livestock.

4. T&E species: Livestock grazing resulting from issuing a grazing lease, may affect, but not likely to adversely affect the bald eagle. It is expected that habitat and range condition would be maintained or improved by authorizing grazing conducive with multiple resource vegetative production goals. Habitat for wintering bald eagles would not be negatively impacted by livestock grazing. There would be no impact to the peregrine falcon since important riparian nesting sites are not found on this allotment.

5. Livestock Management: No adverse impacts are anticipated under the proposed action. If future monitoring indicates a need for adjustment in livestock numbers it will be made in accordance with the established protocols.

6. Visual Resources: The continued grazing of livestock would not affect the form or color of the landscape. The primary appearance of the vegetation within the allotment will remain the same.

7. Water Quality: Direct impacts to surface water quality would be minor, short-term impacts during storm-flow. Indirect impacts to water-quality related resources, such as fisheries, would not occur. The proposed action would not have a significant effect on ground water. Livestock would be dispersed over the allotment, and the soil would filter potential contaminants.

8. Air Quality: Dust levels under the proposed action would be slightly higher than under the no grazing alternative due to allotment management activities. The levels would be within the limits allowed in a Class II area for the Prevention of Significant Deterioration of air quality.

9. Recreation: Grazing should have little or no impact on the dispersed recreational opportunities within this allotment. The evidence or presence of livestock can negatively affect visitors who desire solitude, unspoiled landscape views, or to hike without seeing signs of livestock. However, grazing can benefit some forms of recreation, such as hunting, by creating new water sources for game animals.

10. Caves/Karst: No known significant cave or karst features are known to exist on this allotment. There is a low potential that caves do exist in the area.

11. Non-native and Invasive species: Grazing should have little or no impact on the goldenrod population found within this allotment. Livestock will generally avoid grazing this plant as it is generally low in palatability. An adequate supply of good feed during harsh times when livestock are more prone to consume goldenrod may reduce its consumption. Most precaution should be taken in winter when snowfall covers the better forage plants and goldenrod is the only plant available. The spread of the plant is generally done by creeping roots and some seed dispersal.

12. Floodplains: No impacts to the floodplains are known, by keeping structures out of floodplains, impacts should not occur.

B. Impacts of the No Livestock Grazing Alternative.

1. Soil: Soil compaction would be reduced on the allotment around old trails and bedding grounds, there would be a small reduction in soil loss on the allotment.

2. Vegetation: It is expected that the number of plant species found within the allotment will remain the same however there would be small changes in the relative percentages of these species. Vegetation will continue to be utilized by wildlife. There would be an increase in the amount of standing vegetation.

3. Wildlife: Conflicts between wildlife and livestock for habitat and dietary needs would not exist under this alternative.

4. T&E Species: There would be no impacts to threatened or endangered species or habitat.

5. Livestock management: The forage from public land would be unavailable for use by the permittee. This would have a significant adverse economic impact to the livestock operation. If the No Grazing alternative is selected, the owner of the livestock would be responsible for ensuring that livestock do not enter Public Land [43 CFR 4140.1(b)(1)]. The intermingled land status on the allotment makes it economically unfeasible to fence out the public land and use only the private land.

6. Visual Resources: There would be no change in the visual resources.

7. Water Quality: There could be a slight improvement in water quality due to the minor reductions in sediment loading during storm-flow.
8. Air Quality: There would be a slightly less dust under this under this alternative versus the proposed alternative, but this would be negligible when considering all sources of dust.
9. Recreation: Impacts would be very minor under the alternative. No positive impacts from livestock watering locations would occur.
10. Caves/Karst: Impacts would be the same as the proposed action if no significant caves are found.
11. Non-native and Invasive species: There would be no change in the existing non-native/invasive species populations.
12. Floodplains: Impacts would be the same as the proposed action.

V. Public Land Health

Public Land (Rangeland) Health assessments were completed on the allotment during 2004. Based on the assessments and monitoring data a Determination was made that public land within this livestock grazing allotment is in conformance with the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. A copy of this assessment can be accessed at www.nm.blm.gov/rfo/index.htm.

VI. Cumulative Impacts

A cumulative impact is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

The analysis of cumulative impacts is driven by major resource issues. The action considered in this environmental assessment (EA) is the authorization of livestock grazing on Allotment 64094, and the major issue includes:

The incremental impact of issuing a grazing permit on these resources must be analyzed in the context of impacts from other actions. Other BLM actions that could have impacts on the identified resource include: Livestock authorization on other allotments within the adjacent area, some oil and gas development and activities, rights-of-ways dissecting the area, and recreational use, primarily hunting and subsequent cross country driving.

All authorized activities which occur on BLM land can also take place on state and private lands, with the possibility of decreased management of these resource concerns. Many of the actions which could contribute to cumulative impacts have occurred over many years. Impacts from open-range and yearlong livestock grazing in the last century are still being addressed today and will continue on this and adjacent allotments.

The proposed action and alternatives would not add incrementally to the cumulative impacts to sensitive species or to the overall rangeland health. The conclusions that impacts to these resources from grazing authorization would not be significant are discussed in Section IV of the EA.

If the No-Grazing alternative were chosen, some adverse cumulative impacts to resource would be eliminated, but others would continue. Grazing would no longer be available as a vegetation management tool, and BLM land within the allotment would be less intensively managed.

The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). The elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

VII. Residual Impacts

Vegetative monitoring studies have shown that grazing, at the current permitted numbers of animals, is sustainable. If the mitigation measures are enacted, then there would be no residual impacts to the proposed action.

VIII. Socio-Economic Impacts

A description of the economic, social and cultural conditions by geographic region within New Mexico can be found in 2000 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management Final EIS. The impacts of authorizing grazing for this allotment under the Proposed Alternative on the economic, social and cultural conditions of southeast New Mexico would be positive. On a smaller scale, the impacts of authorizing grazing for this allotment under the Proposed Action on the economic, social and cultural conditions of Chaves County would also be positive.

IX. Mitigating Measures

Vegetation monitoring studies will continue to be conducted and the permitted numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

X. BLM Team Members

Helen Miller, Joseph Navarro, John Spain, Tim Kreager, Irene Gonzales-Salas, Jerry Dutchover, Ernest Jaquez, Pat Flanary, Paul Happel, Howard Parman, Michael McGee.

Production (lbs/ac) Data

VEGID: 700

64094 HOWES

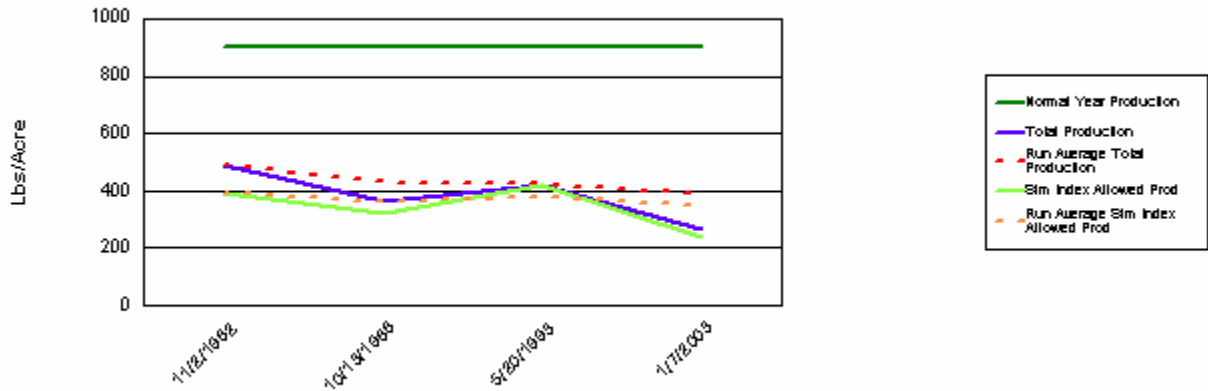
64094-NORTH-E179

LOAMY SD-3

042CY007NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
11/02/1982	53.83	43.33	900	489.00	489.00	390.00	390.00
10/13/1988	61.00	35.78	900	361.00	425.00	322.00	356.00
05/20/1993	61.00	46.33	900	417.00	422.33	417.00	376.33
01/07/2003	45.89	26.78	900	268.00	383.75	241.00	342.50

Production Data For Study Site



Traditional Range Condition and Similarity Index Data

VEGID: 700

64094 HOWES

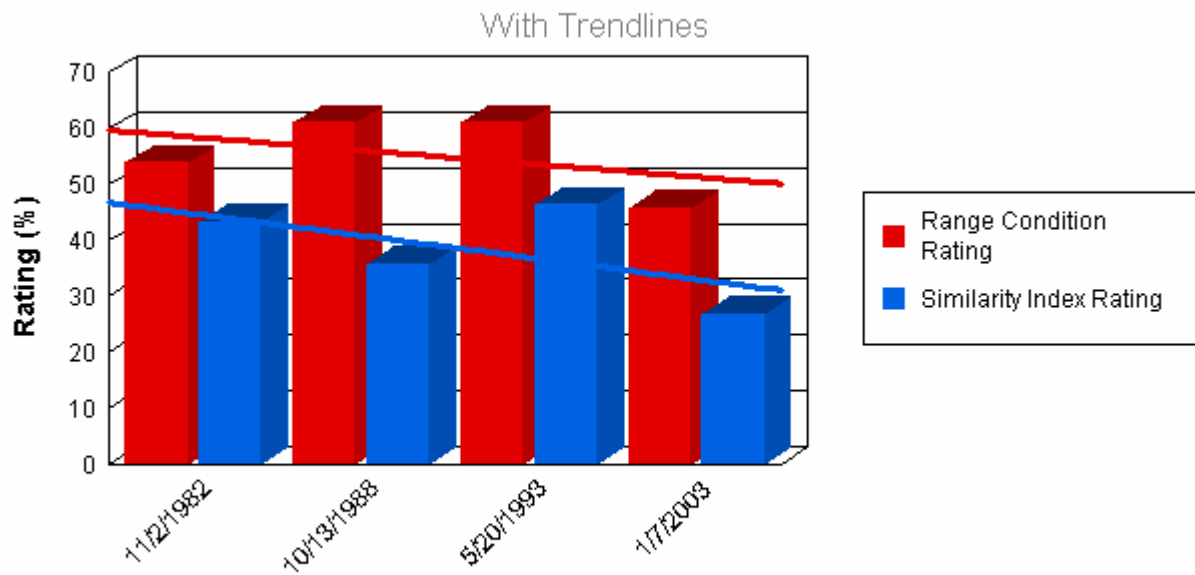
64094-NORTH-E179

LOAMY SD-3

042CY007NM

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Traditional Range Condition vs Similarity Index



64094 HOWES

NORTH

Vegid#: 700

64094-NORTH-E179

Ecological Site No.: 042CY007NM

Location: Township: 0140S Range 0250E Section 20 QtrQtr: SENW

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	52.00	24.00			0	21.00	2.00	0.00	52.00	24.00			0	21.00	2.00	0.00
1989	51.00	2.00				46.00	0.00		51.50	13.00			0	33.50	1.00	0.00
1993	51.00	26.00			0	22.00	1.00		51.33	17.33			0	29.67	1.00	0.00
2003	54.00	14.00	12.00		0	14.00	6.00		52.00	16.50	12.00		0	25.75	2.25	0.00

Running Average Ground Cover Trends

With Trendlines

